

Exhibit D

How SEX and GENDER Influence Health and Disease

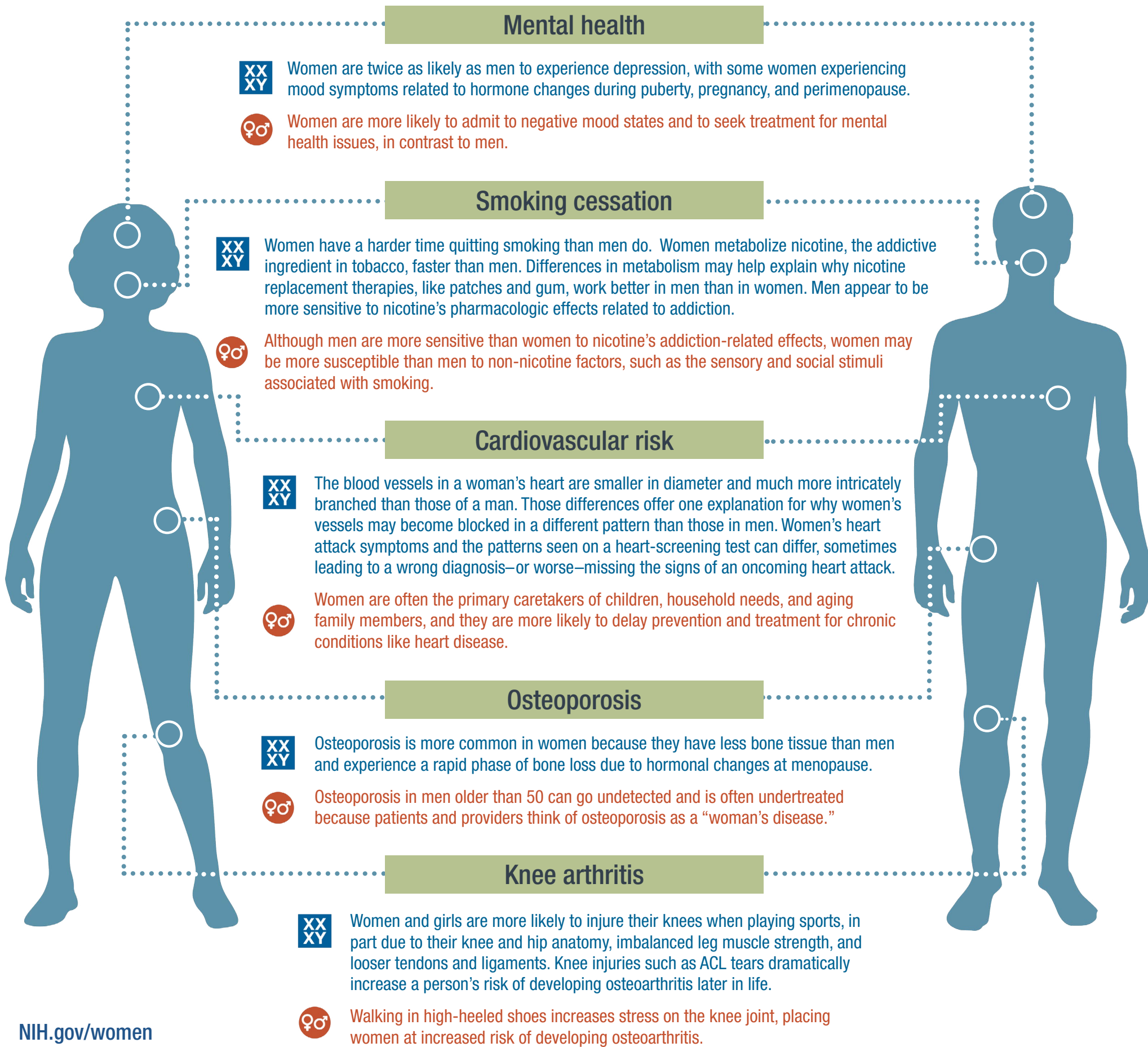
Sex and gender can influence health in important ways. While sex and gender are distinct concepts, their influence is often inextricably linked. The scientific studies that generate the most complete data consider sex and/or gender influences in study design, data collection and analysis, and reporting of findings.

Sex is a biological classification, encoded in our DNA. Males have XY chromosomes, and females have XX chromosomes. Sex makes us male or female. Every cell in your body has a sex—making up tissues and organs, like your skin, brain, heart, and stomach. Each cell is either male or female depending on whether you are a man or a woman.

Gender refers to the socially constructed roles, behaviors, expressions, and identities of girls, women, boys, men, and gender diverse people. It influences how people perceive themselves and each other, and how they act and interact. Gender is usually conceptualized as binary (girl/woman and boy/man), yet there is considerable diversity in how individuals and groups understand, experience, and express it.

Visit **NIH.gov/women** to learn how studying sex and gender strengthens science.

Examples of SEX and GENDER influences



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Sources: Institute of Medicine. Canadian Institutes of Health Research. World Health Organization. National Institute on Drug Abuse. NIH Osteoporosis and Related Bone Diseases National Resource Center. National Institute of Arthritis and Musculoskeletal and Skin Diseases. Kerrigan, D. C., Johansson, J. L., Bryant, M. G., Boxer, J. A., Della Croce, U., & Riley, P.O. (2005). Moderate-heeled shoes and knee joint torques relevant to the development and progression of knee osteoarthritis. Archives of Physical Medicine and Rehabilitation, 86(5), 871-875.